

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

STX, LLC, *
Plaintiff, *
v. * Civil Action No.: RDB-14-3511
EPOCH LACROSSE, LLC, *
Defendant. *
* * * * * * * * * * *

MEMORANDUM OPINION

Plaintiff STX, LLC (“Plaintiff” or “STX”) brings this action against Defendant Epoch Lacrosse, LLC (“Defendant” or “Epoch”), alleging that Epoch infringed U.S. Patent 7,955,199 (the “‘199 Patent”) held by STX. STX asserts both infringement and willful infringement of claims 1, 7-14, and 21-23 of the ‘199 Patent by Epoch’s lacrosse head, the “Hawk.” In response, Epoch has filed a counterclaim contending that the ‘199 Patent is invalid and, even if valid, the “Hawk” does not infringe the ‘199 Patent.

Currently pending are STX’s Motion for Summary Judgment (ECF No. 48) and Motion for Permanent Injunction (ECF No. 49). This Court held a hearing on the pending motions on November 13, 2015. For the reasons that follow, STX’s Motion for Summary Judgment (ECF No. 48) is GRANTED IN PART and DENIED IN PART; and STX’s Motion for Permanent Injunction (ECF No. 49) is DENIED. Specifically, this Court will grant summary judgment in favor of STX on its infringement claim; partially grant summary

judgment in favor of STX on Epoch’s invalidity counterclaim with respect to invalidity under 35 U.S.C. § 112(d), invalidity by anticipation, and invalidity as obvious. However, genuine issues of material fact remain as to Epoch’s arguments for invalidity under 35 U.S.C. § 112(a) with respect to new matter, written description, and enablement. Further, this Court will await the full presentation of evidence before determining whether Epoch’s infringement of the ‘199 Patent was objectively willful, thus summary judgment is also denied as to that claim. Accordingly, this case will proceed to trial on the above questions of invalidity and willful infringement.

BACKGROUND

In ruling on a motion for summary judgment, this Court reviews the facts and all reasonable inferences in the light most favorable to the nonmoving party. *Scott v. Harris*, 550 U.S. 372, 378 (2007); *see also Hardwick ex rel. Hardwick v. Heyward*, 711 F.3d 426, 433 (4th Cir. 2013). The facts of this case remain as recited in this Court’s Claim Construction Memorandum Opinion of August 14, 2015 (ECF No. 45). To summarize, the Plaintiff’s Patent, the ‘199 Patent, is entitled “Lacrosse Head Having a Grooved Frame Member and Independent Stop.” It describes a lacrosse head wherein the frame is partly or entirely of a grooved construction so as to “provide lightness while retaining the strength and durability of the prior art lacrosse stick heads.” ‘199 Patent, col. 1, ll. 29-31. Among other components, the lacrosse head has an “independent stop that is separated from the sidewalls in order to reduce weight.” *Id.* at 1 (Abstract).

The novelty of the “independent stop,” according to the ‘199 Patent, is in the

invention's separation from the sidewalls and protrusion into the scoop of the lacrosse head.

A conventional ball stop is a U-shaped curve at the throat of the lacrosse head, where the sidewalls meet. In contrast, the independent stop of the '199 Patent,

[b]y moving the location of the stop 20 towards the scoop and maintaining the fixation location for the handle, the length of the head is increased . . . , which allows for a decrease in the length of the handle . . . Players deem it advantageous to play with the shortest handles allowable under lacrosse game rules.

Id. at col. 5, ll. 1-7. Moreover, an independent stop with a convex surface can "act like a bubble and flex or give when the ball makes contact with it." *Id.* at col. 5, ll. 15-17. The added flexibility "aids in securing the ball in the pocket." *Id.* at col. 5, l. 18. Ball control is further strengthened by the position of the independent stop above the stringing holes—the ball can be "secured under the ball stop," thereby making it harder to dislodge. *Id.* at col. 5, ll. 19-22.

Inventors Richard Tucker, Jr. and David Reeb (together, the "inventors")¹ submitted their patent application to the United States Patent and Trademark Office ("USPTO"), and a primary examiner of the application, Mike Chambers (the "Examiner"), rejected it for several reasons. Pertinent to this case, the Examiner found that the independent stop and its components were not patentable because prior art, namely by

¹ Richard Tucker, Jr. and David Reeb, the inventors of the "Lacrosse Head Having a Grooved Frame Member and Independent Stop," submitted the patent application for this invention. *See* '199 Patent, at 1. The inventors then assigned the '199 Patent to Wm. T. Burnett IP, LLC, an STX-related IP holding entity, which licensed the '199 Patent exclusively to STX. Pl.'s Opening Claim Construction Brief, 2, ECF No. 30. This license included the right to sue to enforce the '199 Patent. *See* Compl. ¶ 10.

Filice,² Ahlenfeld,³ Morrow,⁴ and Tucker, Sr.,⁵ anticipated certain claims. *See* Compl. Ex. D, 51-55, ECF No. 1-4. In response to the Examiner’s rejections, the inventors submitted an amended application, which the USPTO ultimately accepted. The USPTO then issued the ‘199 Patent on June 7, 2011.

The amended application added a more exact description of the independent stop in claims 1 and 10. *See id.* at 34-36. Specifically, claims 1 and 10 were amended to emphasize the central protrusion of the independent stop and its separation from sidewalls. *See id.* In addition to these amendments, the inventors submitted “Remarks” in which they justified the amendments to their original patent application and distinguished their invention from prior art. With regard to the “stop member,” the inventors explained that “none of the cited references disclose . . . a stop member formed integrally with a throat portion, wherein the forward-most point on the stop member that lies on a central longitudinal axis extends forwardly of an end of at least one of the top rails and bottom rails.” *Id.* at 40. Filice, for example, disclosed a lacrosse head with a “plurality of . . . bar-like fingers” on the interior of the frame. *Id.* These “fingers” sought to “guide and direct a lacrosse ball into *center* of the pocket.” *Id.* at 40-41 (emphasis in original). Any “fingers” that ran along a central axis would direct the ball to either side of the pocket, thereby defeating the intended purpose of Filice. *Id.* at 41.

Moreover, the inventors emphasized that the forward-protruding stop member is

² U.S. Patent Application Publication No. 2005/0064963 to Filice, et al. (“Filice”).

³ U.S. Patent No. 4,270,756 to Ahlenfeld, et al. (“Ahlenfeld”).

⁴ U.S. Patent No. 5,568,925 to Morrow, et al. (“Morrow”).

⁵ U.S. Patent No. 3,507,495 to Tucker, Sr., et al. (“Tucker, Sr.”)

“formed integrally with the throat portion,” a characteristic lacking in Ahlenfeld and Tucker. *Id.* The stop member is “disposed forward of adjacent interior surfaces being formed of common material,” whereas the “resilient pads” of Tucker and Ahlenfeld are “not made of the same material as adjacent surfaces and also are not disposed forward of [these] surfaces . . .” *Id.* at 43.

The ‘199 Patent contains twenty-three claims. Claims 1 and 10 are independent claims, meaning they “do not refer back to or depend on another claim.” See 35 U.S.C. § 112(c). Claim 1 provides as follows:

1. A lacrosse head, comprising:
 - (a) a throat portion comprising a stop member at a forward end and a socket portion at a rearward end;
 - (b) a scoop portion;
 - (c) a first sidewall having a top rail and a bottom rail that extend generally from the throat portion to the scoop portion;
 - (d) a second sidewall having a top rail and a bottom rail that extend generally from the throat portion to the scoop portion; and
 - (e) a central longitudinal axis extending through the mid-point of the scoop portion and the mid-point of the throat portion;
 - (f) wherein the stop member is formed integrally with the throat portion, and wherein the forward-most point on the stop member that lies on the central longitudinal axis extends forwardly of an end of at least one of the said top rail of either the first or second sidewall and said bottom rail of either the first or second sidewall.

‘199 Patent, col. 5, ll. 52-col. 6, ll. 2. The other independent claim, claim 10, reads as follows:

10. A lacrosse head, comprising:

- (a) a throat portion comprising a stop member at a forward end and a socket portion at a rearward end;
- (b) a scoop portion;
- (c) a first sidewall having a top rail and a bottom rail that extend generally from the throat portion to the scoop portion; and
- (d) a second sidewall having a top rail and a bottom rail that extend generally from the throat portion to the scoop portion; and
- (e) a central longitudinal axis extending through the mid-point of the scoop portion and the mid-point of the throat portion;
- (f) wherein the stop member comprises a ball-contacting surface having a point lying on the central longitudinal axis, the point being disposed forwardly of surfaces adjacent to the stop member on the interior side of the lacrosse head, the stop member and the adjacent surfaces being formed of the same material.

'199 Patent, col. 6, ll. 26-44.

This Court held a *Markman* hearing on August 5, 2015, and issued a Memorandum Opinion (ECF No. 45) and Order (ECF No. 46) setting forth its construction of the disputed claim terms on August 14, 2015. The following claims were construed:

CLAIM TO BE CONSTRUED	COURT'S CLAIM CONSTRUCTION
"stop member" (claims 1, 7, 8, 9, 10, 13, 14, & 22 of the '199 Patent)	"protruding portion of frame, beyond the throat, serving as a ball rest or ball stop"
"integrally formed" (claim 1)	"When formed, it is integral"
"attachment member" (claims 7, 8, 21, and 22)	"an element made of material that is more resilient than that of the stop member, which is attached to the stop member"
"separated from the socket" (claim 9)	"spaced from the socket"

See Mem. Op. Claim Construction, ECF No. 45.

STX now moves for summary judgment on the issues of (1) infringement (and Epoch's non-infringement counterclaim), (2) invalidity, and (3) willful infringement. In response, Epoch concedes that, due to this Court's claim construction, the "Hawk" infringes claims 1, 7, 8, and 9. Epoch continues to assert, however, the non-infringement of claims 10-14 and 21-23. Even if Epoch had infringed claims 1, 7-14, and 21-23, it counters that all named claims are invalid.

STANDARD OF REVIEW

Rule 56 of the Federal Rules of Civil Procedure provides that a court "shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). A material fact is one that "might affect the outcome of the suit under the governing law." *Libertarian Party of Va. v. Judd*, 718 F.3d 308, 313 (4th Cir. 2013) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)). Thus, summary judgment is proper "only when no reasonable jury could return a verdict for the nonmoving party." *Monon Corp. v. Stoughton Trailers, Inc.*, 239 F.3d 1253, 1257 (Fed. Cir. 2001) (quoting *Anderson*, 477 U.S. at 255)). When considering a motion for summary judgment, a judge's function is limited to determining whether sufficient evidence exists on a claimed factual dispute to warrant submission of the matter to a jury for resolution at trial. *Anderson*, 477 U.S. at 249.

In undertaking this inquiry, this Court must consider the facts and all reasonable inferences in the light most favorable to the nonmoving party. *Libertarian Party of Va.*, 718 F.3d at 312; see also *Scott v. Harris*, 550 U.S. 372, 378 (2007). However, this Court must also

abide by its affirmative obligation to prevent factually unsupported claims and defenses from going to trial. *Drewitt v. Pratt*, 999 F.2d 774, 778-79 (4th Cir. 1993). If the evidence presented by the nonmoving party is merely colorable, or is not significantly probative, summary judgment must be granted. *Anderson*, 477 U.S. at 249-50. On the other hand, a party opposing summary judgment must “do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986); *see also In re Apex Express Corp.*, 190 F.3d 624, 633 (4th Cir. 1999). As this Court has previously explained, a “party cannot create a genuine dispute of material fact through mere speculation or compilation of inferences.” *Shin v. Shalala*, 166 F. Supp. 2d 373, 375 (D. Md. 2001) (citations omitted).

ANALYSIS

This Court first addresses STX’s contention, and Epoch’s arguments in response, that the “Hawk” infringes claims 1, 7-14, and 21-23 of the ‘199 Patent. Then, this Court turns to whether the ‘199 Patent is invalid. Next, the Court considers STX’s assertion that Epoch willfully infringed the ‘199 Patent. Finally, this Court addresses whether a permanent injunction in favor of STX is warranted.

I. Infringement of the ‘199 Patent

STX argues that it is entitled to summary judgment as to its infringement contentions against the “Hawk.” Epoch has conceded that, due to this Court’s claim construction, the “Hawk” infringes claims 1, 7, 8, and 9 of the ‘199 Patent. Nonetheless, Epoch argues that the “Hawk” does not infringe claims 10-14 and 21-23. This discussion will thus focus solely

on the remaining alleged infringement claims—10, 11, 12, 13, 14, 21, 22, and 23.

Under 35 U.S.C. § 271, “whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States . . . during the term of the patent therefor, infringes the patent.” Infringement is divided into two categories—literal infringement and infringement under the doctrine of equivalents. *See TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1379 (Fed. Cir. 2008) (internal quotation marks and citation omitted) (explaining that, to “find infringement, the accused device must contain each limitation of the claim, either literally or by an equivalent.”). “Literal infringement exists if each of the asserted claim(s) read[s] on, that is, [is] found in, the accused device.” *Baxter Healthcare Corp. v. Spectramed, Inc.*, 49 F.3d 1575, 1583 (Fed. Cir. 1995), cert. denied, 116 S.Ct. 272. Alternatively, where a product does not literally infringe, a court may find infringement under the doctrine of equivalents if there is “‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” *Honeywell Int'l Inc. v. Hamilton Sundstrand Corp.*, 523 F.3d 1304, 1312 (Fed. Cir. 2008) (quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997)).

As STX does not allege infringement under the doctrine of equivalents, this Court will consider only the literal infringement of the ‘199 Patent. Determining whether a patent claim has been literally infringed requires two steps. First, “the claim must be interpreted, as a matter of law, to ascertain its proper scope.” *Baxter Healthcare*, 49 F.3d at 1582. Second, “a determination must be made whether the properly construed claim reads on the accused device.” *Id.*

Independent claim 10 describes:

10. A lacrosse head, comprising:
 - (a) a throat portion comprising a stop member at a forward end and a socket portion at a rearward end;
 - (b) a scoop portion;
 - (c) a first sidewall having a top rail and a bottom rail that extend generally from the throat portion to the scoop portion; and
 - (d) a second sidewall having a top rail and a bottom rail that extend generally from the throat portion to the scoop portion; and
 - (e) a central longitudinal axis extending through the mid-point of the scoop portion and the mid-point of the throat portion;
 - (f) wherein the stop member comprises a ball-contacting surface having a point lying on the central longitudinal axis, the point being disposed forwardly of surfaces adjacent to the stop member on the interior side of the lacrosse head, the stop member and the adjacent surfaces being formed of the same material.

‘199 Patent, col. 6, ll. 26-44. Claims 11-14 and 21-23 are dependent claims referring to claim 10. *See id.*, col. 6, ll. 45-61; col. 8, ll. 1-12. STX argues that the “Hawk” infringes claim 10 (and dependent claims 11-14 and 21-23) through the inclusion of each limitation of the infringed claims. Chiefly, the “Hawk” includes a protruding independent stop member lying along the central longitudinal axis that is made of a type of plastic, like its adjacent surfaces.

Epoch, although conceding the infringement of claims 1, 7, 8, and 9, contends that the “Hawk” does not infringe claims 10-14 and 21-23 because independent claim 10 adds a further limitation that is absent in independent claim 1—namely, that the stop member “comprise[s] a ball-contacting surface[.]” ‘199 Patent, col. 6, ll. 39. This element is the sole

point of issue upon which Epoch asserts non-infringement of claims 10-14 and 21-23. Epoch makes no arguments beyond the “ball-contacting surface” requirement that are specific to the limitations added by dependent claims 11-14 and 21-23. Epoch correctly states that this Court specifically omitted the phrase “ball-contacting surface” from the construction of the term “stop member.” Claim Construction Mem. Op., at 11-12. The addition of this phrase to claim 10, according to the Defendant, necessarily requires that the stop member of claims 10-14 and 21-23 must contact the ball. Epoch argues that the stop member of the “Hawk” does not contact the ball, thus it does not literally infringe claims 10-14 and 21-23. Rather, a resilient pad affixed to the surface of the stop member shields the stop member from contact with the ball.

The term “ball-contacting surface,” construed as “Any portion of the stop member capable of contacting a lacrosse ball,” requires only that the stop member be *capable* of contacting the ball. Joint Claim Construction Statement, 2, ECF No. 27 (emphasis added). It does not require that a ball *actually* contact the surface of the stop member at all times. Yet, the resilient pad that Epoch argues shields the stop member is smaller than the surface of the stop member. The remaining exposed surface is capable of contacting the ball. As this Court explained during the hearing on November 13, 2015, the “notion that [a ball] doesn’t touch [the stop member] is defied by” reality. Hearing Tr. 19:15-16, ECF No. 55. This Court performed an in-court demonstration on the record that a ball could, in fact, contact the stop member of the “Hawk.” *Id.* 19:11-24. Even further, a ball resting in the pocket of the “Hawk” is also capable of contacting the side of the stop member.

Given this capability, the “Hawk” includes a stop member that, among other attributes, “comprises a ball-contacting surface.” The sole point of dispute in favor of non-infringement—the presence of a ball-contacting surface—thus “reads on the accused device.” STX is thereby entitled to judgment as a matter of law in its favor on the literal infringement of claims 10, 11, 12, 13, 14, 21, 22, and 23, as well as conceded claims 1, 7, 8, and 9.

II. Invalidity

In general, a United States Patent is presumed valid, and the “burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.” 35 U.S.C. § 282. An invalidity defense must be “proved by clear and convincing evidence.” *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2243 (2011). The United States Court of Appeals for the Federal Circuit has explained that this high burden of proof stems from the fact that the party challenging a patent “bear[s] the added burden of overcoming the deference that is due to a qualified government agency presumed to have done its job.” *Sciele Pharma Inc. v. Lupin Ltd.*, 684 F.3d 1253, 1260 (Fed. Cir. 2012) (citing *PharmaStem Therapeutics, Inc. v. Viacell, Inc.*, 491 F.3d 1342, 1366 (Fed. Cir. 2007)). A party may assert invalidity on several grounds, including certain deficiencies under 35 U.S.C. § 112, anticipation by prior art, and the obviousness of the invention. See 35 U.S.C. §§ 102, 103, 112. Epoch, in support for its counterclaim and defense of invalidity, asserts all of the above grounds.

A. 35 U.S.C. § 112(a)

Epoch asserts three arguments for invalidity under 35 U.S.C. § 112(a). First, Epoch argues that independent claim 1 and dependent claims 7, 8, and 9 contain impermissible “new matter.” Second, Epoch contends that dependent claims 7, 8, 21, and 22 are invalid for failing to satisfy the “written description” requirement of § 112(a). Finally, Epoch argues that dependent claims 7, 8, 21, and 22 also fail to comply with the “enablement” requirement of § 112(a). Each argument will be addressed in turn.

Under 35 U.S.C. § 132, “[n]o amendment shall introduce new matter into the disclosure of the invention.” 35 U.S.C. § 132(a). Where an amendment adds new matter upon reexamination, the USPTO Examiner must reject the claim on the ground that the claim recites elements without support in the original disclosure under § 112(a). *Walkdemer Link, GmbH & Co. v. Osteonics Corp.*, 32 F.3d 556, 559 (Fed. Cir. 1994). When the “essence” of the original disclosure supports the new claim limitation, then the amendment is not impermissible new matter. See *In re Wright*, 866 F.2d 422, 424 (Fed. Cir. 1989). Further, a patent is entitled to a strong presumption in favor of validity if the USPTO Examiner allowed the amendment without a new matter objection. *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 1574-75 (Fed. Cir. 1992). Determining whether amended language is new matter “depends on the facts of the case: the nature of the disclosure, the state of the art, and the nature of the added matter.” *Id.* at 1574.

The offending language classified by Epoch as “new matter” in claim 1 (and its dependent claims) is the requirement that the independent stop member be “formed integrally with the throat portion.” ‘199 Patent, col. 5, ll. 64-65. After the USPTO’s initial

rejection of their application, the inventors amended claim 1 to include the “formed integrally . . .” language. *See* Compl. Ex. D, at 34. Epoch contends that this language discloses a method by which the invention—the lacrosse head of the ‘199 Patent—is to be manufactured. Nothing in the original specification, abstract, claims, or drawings, however, discloses a method of manufacturing. In response, STX argues that the “formed integrally” language is supported by the “essence” of the original disclosure, as this language served only to distinguish the claimed invention from those of the Ahlenfeld and Tucker, Sr. Patents. Indeed, the USPTO Examiner referred to the “formed integrally” language when approving the amended patent application, but did not note a new matter objection. Reasons for Allowance, 2, ECF No. 1-4. Yet neither party offers much detail, such as expert opinions, in support of its position. Given the dearth of evidence on either side, this Court simply cannot conclude that, as a matter of law, the amended language does not constitute new matter. This determination must be made by a jury, before whom the particular facts of this case will be presented.

Epoch next contends that claims 7, 8, 21, and 22 are invalid for failing to comply with the “written description” requirement of § 112(a). Section 112(a) commands that the patent specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same . . .”

35 U.S.C. § 112(a). The written description “serves the fundamental patent purpose of making known what has been invented[.]” *Space Sys./Loral, Inc. v. Lockheed Martin Corp.*, 405

F.3d 985, 987 (Fed. Cir. 2005). Although the written description “need not include information that is already known and available to the experienced public, [the description] must be in sufficient detail to satisfy the statutory requirements, employing ‘[w]ords, structures, figures, diagrams, formulas, etc. . . .’” *Id.* (quoting *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997)).

Epoch argues that claims 7, 8, 21, and 22 fail to comply with the written description requirement because the term they disclose—“attachment member”—is accompanied by no written description or illustration. This argument is distinct from Defendant’s earlier contention that “attachment member” is indefinite, an argument that this Court soundly rejected during claim construction.⁶ Rather, Epoch contends that the ‘199 Patent simply fails to employ any “[w]ords, structures, figures, diagrams, formulas, etc.” to describe “attachment member.” STX, in contrast, asserts that an ordinary person skilled in the art would have little difficulty understanding what, precisely, is disclosed by the term “attachment member.” The parties’ positions, however, are factual arguments that are proper for a jury’s consideration. A genuine dispute of material fact as to whether claims 7, 8, 21, and 22 sufficiently describe the term “attachment member” exists such that summary

⁶ As this Court explained,

The claims in which “attachment member” appears leave no uncertainty as to the meaning of the term. *See* ‘199 Patent, col. 6, ll. 13-21; col. 8, ll. 1-8. An attachment member is simply an element “formed of a [different and] more resilient material than that of the stop member” that is attached to the stop member. *Id.*, col. 6, ll. 16-21. As this Court explained at the *Markman* hearing, any individual skilled in the art of lacrosse head design would understand the meaning of this term. Hearing Tr. 110:5-22.

Mem. Op. Claim Construction, at 14.

judgment is inappropriate.

Epoch's third argument for invalidity under § 112(a) also attacks the "attachment member" of claims 7, 8, 21, and 22, yet on the ground that the claims fail to comply with the "enablement" requirement. The enablement requirement asks "whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." *United States v. Telectronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988) (citing *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986)). Although ultimately a question of law, the enablement inquiry may involve underlying issues of fact proper for a jury's attention. *Streck, Inc. v. Research & Diagnostic Sys.*, 665 F.3d 1269, 1288-89 (Fed. Cir. 2012). These factors include:

(1)the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

In re Wands, 858 F.2d 731, 737 (Fed. Cir. 1988). A patent "need not teach . . . what is well known in the art," *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986), but this rule is "merely a rule of supplementation, not a substitute for a basic enabling disclosure." *ALZA Corp. v. Andrx Pharm., LLC*, 604 F.3d 935, 940-41 (Fed. Cir. 2010) (quoting *Auto. Techs. Int'l, Inc. v. BMW of N. Am., Inc.*, 501 F.3d 1274, 1282 (Fed. Cir. 2007)).

Epoch contends that the '199 Patent does not disclose, either through diagrams or

specific language, what the “attachment member” is, what it does, where it is attached, or how to make it without undue experimentation. In response, STX simply points to this Court’s holding that “attachment member” is not indefinite to rebut Epoch’s claim. Yet, the indefiniteness inquiry and the enablement inquiry, although overlapping, are separate and distinct inquiries. The “attachment member” may be definite, but an ordinary person skilled in the art may not know how to make or use the “attachment member” without undue experimentation. The term’s definiteness does not foreclose the possibility that claims 7, 8, 21, and 22 do not comply with the enablement requirement. It is possible that the full presentation of evidence at trial will allow this Court to decide, as a matter of law, that the term “attachment member” does or does not satisfy the enablement requirement of § 112(a). At this stage, however, Epoch has raised a genuine issue of material fact with respect to whether claims 7, 8, 21, and 22 provide sufficient detail to enable an ordinary person skilled in the art to make and/or use the “attachment member.” Accordingly, Epoch’s counterclaim of invalidity with respect to its arguments under § 112(a) will proceed to trial.

B. 35 U.S.C. § 112(d)

Epoch also argues that claims 21 and 22 are invalid under 35 U.S.C. § 112(d) for failing to further limit claim 10, the claim from which they depend. This argument rests on the same reasoning that this Court rejected when finding as a matter of law that the “Hawk” infringed claims 10-14 and 21-23. Specifically, Epoch states that STX labels the resilient pad affixed to the top of the “Hawk” stop member as the “attachment member” disclosed in claims 21 and 22. This pad, according to Epoch, prevents the stop member from contacting

the ball. Claim 10, however, requires that the stop member comprise “a ball-contacting surface,” among other attributes. Claims 21 and 22 thus effectively broaden claim 10 by removing the ball-contact requirement.

As this Court noted *supra*, the “Hawk” stop member is capable of contacting the ball. The mere fact that the resilient pad, or “attachment member,” is also capable of contacting the ball does not preclude any contact with the stop member. The ‘199 Patent does not specify whether the stop member and the attachment member must touch the ball simultaneously or successively. Rather, both elements must only be *capable* of such contact. Claims 21 and 22 thus do not broaden claim 10, as claim 10 already comprises a “ball-contacting surface.” STX is entitled to summary judgment on Epoch’s counterclaim of invalidity with respect to Epoch’s argument under § 112(d).

C. Anticipation

Next, Epoch asks this Court to find that the ‘199 Patent is invalid because it was anticipated by prior art—namely, the deBeer “Phantom” lacrosse head⁷ and U.S. Patent 6,723,134 (the “‘134 Patent),⁸ embodied in the STX “FUSE” lacrosse head. A patent is invalid if it was anticipated by prior art. Under 35 U.S.C. § 102(b), a patent application will not be approved if the invention “was patented or described in a printed publication in this or a foreign country . . . more than one year prior to the date of the application for a patent in the United States.” To find that prior art anticipated a patent claim, “each and every

⁷ Epoch asserts that the deBeer “Phantom” anticipates claims 1, 7-14, and 21-23.

⁸ Epoch argues that the ‘134 Patent anticipates only claims 1, 9-14, and 21-23.

limitation [must be] found either expressly or inherently in a single prior art reference.” *Celeritas Techs., Ltd. V. Rockwell Int'l Corp.*, 150 F.3d 1354, 1361 (Fed. Cir. 1998). Although the “elements must be arranged or combined in the same way as in the claim, . . . the reference need not satisfy an *ipsissimis verbis* [i.e. verbatim] test[.]” *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (internal quotation marks and citations omitted). Moreover, deference is generally accorded to a “qualified government agency presumed to have done its job.” *Sciele Pharm. Inc. v. Lupin Ltd.*, 684 F.3d 1253, 1260-61 (Fed. Cir. 2012).

Epoch first contends that claims 1, 7, 8, 9, 10, 11, 12, 13, 14, 21, 22, and 23 are invalid as anticipated by the deBeer “Phantom.” The “Phantom” was described in a 2001 publication by E-Lacrosse.com, more than one year prior to May 2, 2005, the earliest effective date of the ‘199 Patent. Miceli Aff. Ex. 6, ECF No. 50-7. Court’s Exhibits 3, 4, and 5 are physical samples of the “Phantom.” At issue on summary judgment is whether the small plastic lip on the U-shaped base of the “Phantom” is the stop member disclosed in claims 1 and 10 of the ‘199 Patent.⁹

Independent claim 1 discloses, in pertinent part, a stop member that is

formed integrally with the throat portion, and wherein the forward-most point on the stop member that lies on the central longitudinal axis extends forwardly of an end of at least one of said top rail of either the first or second sidewall and said bottom rail of either the first or second sidewall.

‘199 Patent, col. 5, l. 64-col. 6, l. 2. Similarly, independent claim 10 describes a stop member that “comprises a ball-contacting surface having a point lying on the central longitudinal axis,

⁹ This small plastic lip is the sole element in dispute with respect to anticipation of claims 1, 7-14, and 21-23 by the “Phantom.”

the point being disposed forwardly of surfaces adjacent to the stop member on the interior side of the lacrosse head . . .” *Id.* co. 6, ll. 39-43. Epoch argues that the small plastic lip is extends forwardly on the central longitudinal axis, appears to be formed integrally with the base structure, and capable of contacting the ball.¹⁰ Further, Epoch notes that the ‘199 Patent discloses any required, optimal, minimum, or maximum dimensions for the stop member.

As this Court explained during the November 13, 2015 hearing, no reasonable jury could find that the tiny piece of plastic on the “Phantom” is the independent ball stop disclosed in claims 1 and 10 (and their respective dependent claims). Epoch is correct that the ‘199 Patent does not specify dimensions for the stop member. Yet, this omission is not automatically dispositive. This Court construed “stop member” as the “protruding portion of frame, beyond the throat, serving as a ball rest or ball stop.” Claim Construction Mem. Op., at 12. The stop member of the ‘199 Patent thus must be capable of serving as a ball rest or ball stop. The minuscule piece of plastic on the “Phantom” could not serve as a ball stop or ball rest—indeed, any ball would simply roll off the slight protrusion. The absence of dimensions thus does not obviate the requirement that the stop member serve as a ball stop or ball rest. As the tiny piece of plastic at the base of the “Phantom” cannot fulfill this function, no reasonable jury could find anticipation by the “Phantom.” STX is thus entitled to summary judgment on Epoch’s anticipation argument regarding the “Phantom” head.¹¹

¹⁰ This last alleged attribute is relevant only to independent claim 10.

¹¹ Epoch also contends that the pad on the “Phantom” is the “attachment member” of the ‘199 Patent.

Epoch also argues that claims 1, 9, 10, 11, 12, 13, 14, and 23 are anticipated by the ‘134 Patent. The ‘134 Patent was issued to Richard Tucker, Sr. on April 20, 2004, more than one year prior to the earliest effective date of the ‘199 Patent. Both parties have acknowledged that Court’s Exhibit 7, the STX “FUSE” head, is an embodiment of the ‘134 Patent. *See* Hearing Tr. 12:7-9; 42:4-9. The ‘134 Patent discloses, in pertinent part,

In this manner, the manufacturer forms ball stop overlay 202 immediately after forming base lacrosse head structure 200 and avoids the effort and expense associated with procuring and affixing a foam ball stop on the lacrosse head. Further, ball stop overlay 202, as a durable integral component of the lacrosse head, lasts the life of the head, and does not deteriorate and require replacement. In an embodiment of the present invention, ball stop overlay 202 includes ridges that help absorb the impact of the ball and keep the ball under control within the pocket.

‘134 Patent, col. 8, ll. 17-27. Epoch essentially contends that the “ball stop overlay” described *supra* is the stop member disclosed in independent claims 1 and 10 of the ‘199 Patent. Due to the use of “integral” when describing the ball stop overlay, that component is necessarily “formed integrally” to the base of the frame.

Yet, this argument assumes that “integral” of the ‘134 Patent and “formed integrally” of the ‘199 Patent are one and the same. A review of the respective patent language, however, shows that such an assumption is misguided. As a preliminary matter, this Court notes that the terms “ball stop overlay” and “stop member” connote different functions. The “ball stop overlay” of the ‘134 Patent requires a separate ball stop over which the

Beyond simply stating this allegation, Epoch does not advance any argument in support. A conclusory one-sentence assertion is not sufficient to raise a genuine issue of material fact with respect to any anticipation of the “attachment member” by the “Phantom.”

overlay is placed. In contrast, the “stop member” is the ball stop over which an overlay could be placed.

Moreover, the ball stop overlay of the ‘134 Patent may be a “durable integral component of the head,” but such language does not speak to whether the overlay was “formed integrally” with the base structure (claim 1) or “formed of the same material” as the adjacent elements (claim 2).¹² In the ‘199 Patent, the term “formed integrally” was construed by this Court to mean “when formed, it is integral.” This construction thus implies that “integrally” refers to the manner in which the stop member is formed. Further, the use of the present tense indicates that the stop member is formed at the same time as the base structure, or “throat portion.” In contrast, the phrase “durable integral component of the head” does not speak at all as to how the ball stop overlay of the ‘134 Patent is formed. Indeed, it is the sentence immediately preceding this phase that describes the manner of formation, explaining in relevant part, that “the manufacturer forms ball stop overlay 202 immediately *after* forming base lacrosse head structure . . .” As the ball stop overlay of the ‘134 Patent is formed *after* and apart from the base structure, the ball stop overlay cannot “formed integrally” within the meaning of the ‘199 Patent.

Even further, the ‘134 Patent anticipates the possibility that the ball stop overlay may be replaced. Specifically, the ‘134 Patent states that the ball stop overlay “lasts the life of the

¹² Epoch’s assertion of anticipation by the ‘134 Patent focuses solely on the perceived similarities between the language of the ‘134 Patent and that of claim 1. Claim 10, unlike claim 1, does not include the phrase “formed integrally” when describing the disclosed independent stop member. Compare ‘199 Patent, col. 5, ll. 64-65, with ‘199 Patent, col. 6, ll. 43-44. Although Epoch asserts that the ‘134 Patent also anticipates independent claim 10, it offers no support for this contention. This Court will thus address only Epoch’s arguments regarding the alleged anticipation of claim 1.

head, and does not deteriorate and require replacement.” The ball stop overlay is thus designed not to *require* replacement, but the inclusion of this attribute necessarily implies that replacement is possible. As seen in Court’s Exhibit 7, the ball stop overlay is merely glued on the U-shaped base structure.¹³ If the glue weakened, the ball stop overlay could be replaced. The independent stop member of the ‘199 Patent, in contrast, may not be replaced. The ball stop overlay thus cannot be “formed integrally” if replacement of that component is possible.

In sum, no reasonable jury could conclude that the ‘199 Patent is invalid as anticipated by the deBeer “Phantom” or the ‘134 Patent. STX is accordingly entitled to judgment as a matter of law in its favor on Epoch’s counterclaim of invalidity through anticipation.

D. Obviousness

Finally, Epoch contends that the ‘199 Patent is invalid as obvious over the de Beer “Phantom” head and/or an E-Lacrosse.com publication of the STX “FUSE” head. Specifically, Epoch asserts that claims 1, 7-14, and 21-23 are invalid as obvious over the “Phantom,” whereas claims 1, 9-14, and 23 are invalid as obvious over the October 4, 2002 E-Lacrosse.com publication in combination with either the ‘134 Patent or U.S. Patent 7,214,150 to Filice, et al. (the “‘150 Patent”).¹⁴

¹³ Although Epoch argues solely that the ‘134 Patent, and not the “FUSE” head, anticipates the ‘199 Patent, Epoch has admitted that the “FUSE” is an embodiment of the ‘134 Patent. A reference to the “FUSE,” Court’s Exhibit 7, is thus instructive with respect to anticipation.

¹⁴ The ‘150 Patent is the approved final version of the Filice patent application described *supra* note 2. As noted, the USPTO Examiner discussed Filice in his initial rejection of the application of the ‘199 Patent.

35 U.S.C. § 103 governs obviousness. Section 103 provides that, even if the invention is not anticipated by some prior art, a patent may not be obtained, “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious . . . to a person having ordinary skill in the art to which the claimed invention pertains.” 35 U.S.C. § 103. The “ultimate judgment of obviousness is a legal determination” for the court. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 427 (2007); *see also Dippin' Dots, Inc. v. Mosey*, 476 F.3d 1337, 1343 (Fed. Cir. 2007). To resolve this legal question, a court looks to certain underlying factual inquiries: (1) “the scope and content of the prior art;” (2) “differences between the prior art and the claims at issue;” (3) “the level of ordinary skill in the pertinent art;” and (4) secondary considerations such as “commercial success, long felt but unsolved need, [and the] failure of others.” *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17-18 (1966). In essence, obviousness precludes an invention’s patentability where it does “nothing more than combine the teachings available in a manner which would have been obvious to one skilled in the art.” *Zero Mfg. Co. v. Miss. Milk Producers Ass’n*, 358 F.2d 853, 855 (5th Cir. 1966).

With respect to the deBeer “Phantom,” Epoch’s obviousness argument mirrors its argument for anticipation. Essentially, Epoch contends that it is obvious to an ordinary person skilled in the art of lacrosse design and manufacturing that the stop member of independent claims 1 and 10 (and their respective dependent claims) does “nothing more than combine the teachings” of the tiny piece of plastic located at the base of the “Phantom” head. No reasonable jury, however, could find that an ordinary person skilled in

the art would reach such a conclusion. As this Court explained *supra*, the slight lip of plastic on the “Phantom” bears absolutely no resemblance to the independent stop member of the ‘199 Patent and its protrusion into the scoop of the lacrosse head. Furthermore, the lip of plastic does not fulfill the same functions. The tiny piece of plastic does not teach a stop member that protrudes from the frame and serves as a ball stop or ball rest, as a ball could not even rest on this alleged stop member. A contrary conclusion would allow the exception—invalidity for obviousness—to swallow the rule—validity of a patent.

Even further, Epoch’s argument exhibits the hindsight bias that the United States Court of Appeals for the Federal Circuit has repeatedly rejected in an obviousness analysis. *See, e.g., InTouch Techs., Inc. v. VGO Commc’n, Inc.*, 751 F.3d 1327, 1352 (Fed. Cir. 2014). Obviousness asks whether an ordinary person skilled in the art “*would* have been motivated to” combine prior art to make the invention at issue. *Id.* (emphasis in original). This inquiry does not ask simply whether the skilled artisan “*could* combine these references.” *Id.* (emphasis in original). Even if a person skilled in the art of lacrosse design could combine the teachings of the “Phantom” to create the stop member of claims 1 and 10, there is simply no evidence that this skilled person would be motivated to do so.

Next, Epoch argues that claims 1, 9-14, and 23 are invalid as obvious over the October 4, 2002 E-Lacrosse.com publication, in view of the ‘134 Patent or the ‘150 Patent. The E-Lacrosse.com publication depicts the STX “FUSE” head, which both parties agree is an embodiment of the ‘134 Patent. Given this admission, Epoch asserts that the invention of the ‘199 Patent is not only anticipated by the ‘134 Patent, but also obvious over its

embodiment, the “FUSE” head. Critical to this argument, however, is Epoch’s insistence that the “ball stop overlay” of the ‘134 Patent is the stop member of the ‘199 Patent. Yet, no ordinary person skilled in the art would conclude that the ‘199 Patent merely combines the attributes of the ‘134 Patent’s ball stop overlay. For example, the ball stop overlay of Court’s Exhibit 7 (the “FUSE”) is clearly glued onto the base structure, whereas the ‘199 Patent discloses an independent stop member that is either “formed integrally” with (claim 1) or “of the same material” as (claim 10) the base structure of the head. Epoch offers no argument beyond that made in support of anticipation by the ‘134 Patent—an argument that this Court rejected as a matter of law. Accordingly, the ‘199 Patent is neither invalid for anticipation by the ‘134 Patent, nor invalid as obvious in view of the “FUSE” head.

Finally, the ‘199 Patent is not invalid as obvious over the ‘150 Patent. Epoch simply states that an ordinary person skilled in the art would view the invention of the ‘199 Patent as obvious in light of the disclosures of the ‘150 Patent. Epoch points to the ‘150 Patent’s teaching of “making a lacrosse head 320 and its stop member 370 of diverse materials molded together during the manufacturing process.” Def.’s Resp. in Opp’n to Pl.’s Mot. for Summ. J., 42, ECF No. 50. Epoch, however, fails to explain how a person skilled in the art would make the cognitive leap from the teachings of the ‘150 Patent, admittedly accompanied by the E-Lacrosse.com publication, to the ‘199 Patent. Indeed, no reasonable jury could reach that conclusion.

In sum, each of Epoch’s arguments with respect to obviousness fail as a matter of law. The ‘199 Patent is obvious over neither the deBeer “Phantom” nor the October 4, 2002

E-Lacrosse.com publication, in view of the ‘134 Patent or the ‘150 Patent. Accordingly, STX is entitled to summary judgment on Epoch’s counterclaim of invalidity due to obviousness.

III. Willful Infringement

Next, STX contends that Epoch willfully infringed the ‘199 Patent by persisting in its denial of infringement and assertions of invalidity. To prove willful infringement, the holder of a patent must show by clear and convincing evidence that the “infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.” *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc). This threshold “objective” inquiry is a legal determination made by the court. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assoc., Inc.*, 682 F.3d 1003, 1007 (Fed. Cir. 2012). The court must determine, “based on the record ultimately made in the infringement proceedings[,]” whether ‘a reasonable litigant could realistically expect’ those defenses to succeed.” *Id.* (quoting *iLOR, LLC v. Google, Inc.*, 631 F.3d 1372, 1378 (Fed. Cir. 2011)). If, and only if, this first objective question is satisfied will the second, subjective, question arise: whether the holder of the patent demonstrated, by clear and convincing evidence, that “this objectively-defined risk (as determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer.” *Seagate*, 497 F.3d at 1371. This subjective question is a determination to be made by a jury.¹⁵ *Bard*, 682 F.3d at 1007-08.

STX contends that Epoch willfully infringed the ‘199 Patent by acting despite an

¹⁵ The first analysis—objective willfulness—will be conducted by this Court after the full presentation of evidence at trial. If this Court determines that the evidence does show objective willfulness by Epoch, then the second analysis—subjective willfulness—will be submitted to the jury. If, however, STX does not carry its burden of proof on objective willfulness, then the question of subjective willfulness will not go to the jury.

objectively high likelihood that its actions infringed a valid patent. Yet, at this stage in the proceedings, this Court is unable to determine whether Epoch acted with the requisite objective willfulness. Epoch asserts that its defenses are well-grounded in patent law, a contention that STX emphatically rejects. This Court will await the full presentation of evidence at trial before issuing a final ruling as to objective willfulness. Accordingly, summary judgment in favor of STX is denied and the claim of willful infringement will proceed to trial.

IV. Permanent Injunction

Finally, STX seeks a permanent injunction “restraining Epoch, its officers, agents, servants, attorneys, and all persons acting in concert with Epoch from further acts of infringement of the ‘199 Patent.” Pl.’s Mot. for Permanent Inj., 1, ECF No. 49. To accompany the requested permanent injunction, STX also seeks an order “directing the destruction of all Hawk heads in Epoch’s inventory or in transit or in process of manufacture and the recall and return from wholesale and retail of all existing Hawk heads.”

Id. In *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388, 391-92 (2006), the United States Supreme Court held that a party seeking a permanent injunction must satisfy four factors: (1) “that [the plaintiff] has suffered an irreparable injury;” (2) “that remedies available at law, such as monetary damages, are inadequate to compensate for that injury;” (3) “that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted;” and, finally, (4) “that the public interest would not be disserved by a permanent injunction.”

As this Court is only granting STX’s Motion for Summary Judgment in part, a

permanent injunction in its favor is inappropriate at this time. A full discussion of the *eBay* factors is thus unnecessary. At the hearing on November 13, 2015, this Court confirmed that Epoch is no longer manufacturing the “Hawk.” Epoch ceased manufacturing of the “Hawk” in Spring 2015, and sales of the “Hawk” to its distributors in September 2015. Miceli Aff. ¶ 11. Epoch states that it has retained only a few dozen “Hawk” heads “solely for the purpose of satisfying warranty claims.” *Id.*

CONCLUSION

For the reasons stated above, STX’s Motion for Summary Judgment (ECF No. 48) is GRANTED IN PART and DENIED IN PART; and STX’s Motion for Permanent Injunction (ECF No. 49) is DENIED. Specifically, this Court will grant summary judgment in favor of STX on its infringement claim; partially grant summary judgment in favor of STX on Epoch’s invalidity counterclaim with respect to invalidity under 35 U.S.C. § 112(d), invalidity by anticipation, and invalidity as obvious. However, genuine issues of material fact remain as to Epoch’s arguments for invalidity under 35 U.S.C. § 112(a) with respect to new matter, written description, and enablement. Further, this Court will await the full presentation of evidence before determining whether Epoch’s infringement of the ‘199 Patent was objectively willful, thus summary judgment is also denied as to that claim. Accordingly, this case will proceed to trial on the above questions of invalidity and willful infringement.

A separate Order follows.

Dated: December 14, 2015

/s/

Richard D. Bennett
United States District Judge